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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,227	10/31/2003	Shmuel Ur	IL920030044US1	3388

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Stephen C. Kaufman  
Intellectual Property Law Dept.  
IBM Corporation  
P.O. Box 218  
Yorktown Heights, NY 10598

EXAMINER

CHERRY, STEPHEN J

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/699,227

Applicant(s)

UR ET AL.

Examiner

Stephen J. Cherry

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 35-43 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-34 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3-14-2005</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

Claims 35-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7-12-2005.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,243,862 to Lebow.

Claim 1 recites, as disclosed by Lebow ('862):

1. A method of verifying a design, comprising the steps of: generating a test case for execution using said design, wherein said design comprises a plurality of resources, one of said resources being required at a predetermined time to accommodate a signal during execution of said test case ('862, col. 19, line 42, and fig. 5, 102); designating said one resource as an unidentified resource ('862, col. 19, line 50, and fig. 5, 106); delaying binding said signal with said unidentified resource until immediately prior to said predetermined time; thereafter binding said

signal with said unidentified resource to define a bound resource ('862, col. 19, line 54, and fig. 5, 108); and accessing said bound resource ('862, fig. 5, 118).

Claim 2 recites, as disclosed by Lebow ('862):

2. The method according to claim 1, further comprising the steps of: prior to said predetermined time copying said unidentified resource to another of said resources ('862, col. 19, , line 45, line of test script to parser); and after passage of said predetermined time binding said signal with said another resource ('862, fig. 5, 118).

Claim 3 recites, as disclosed by Lebow ('862):

3. The method according to claim 1, wherein said signal is an outcome determinative input to a Boolean function ('862, col. 19, line 64).

Claim 4 recites, as disclosed by Lebow ('862):

4. The method according to claim 3, further comprising the steps of: designating a second one of said resources as a second unidentified resource for accommodation of a second signal that is a second input of said Boolean function, an output of said Boolean function being insensitive to said second input; and avoiding binding said second unidentified resource with said second signal during execution of said test case ('862, fig. 5, branch from 122 to 102 depicts iterative operation wherein parameters of subsequent missing commands are not supplied until after execution of prior commands at 118).

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Claim 5 recites, as disclosed by Lebow ('862):

5. A computer software product, comprising a computer-readable medium in which computer program instructions are stored, which instructions, when read by a computer, cause the computer to verify a design by the steps of: generating a test case for execution using said design, wherein said design comprises a plurality of resources, one of said resources being required at a predetermined time to accommodate a signal during execution of said test case ('862, col. 19, line 42, and fig. 5, 102); designating said one resource as an unidentified resource ('862, col. 19, line 50, and fig. 5, 106); delaying binding said signal with said unidentified resource until immediately prior to said predetermined time during execution of said test case; thereafter binding said signal with said unidentified resource to define a bound resource ('862, col. 19, line 54, and fig. 5, 108); and accessing said bound resource ('862, fig. 5, 118).

Claim 6 recites, as disclosed by Lebow ('862):

6. The computer software product according to claim 5, wherein said computer is further instructed to perform the steps of: prior to said predetermined time copying said unidentified resource to another of said resources ('862, col. 19, , line 45, line of test script to parser); and after passage of said predetermined time binding said signal with said another resource ('862, fig. 5, 118).

Claim 7 recites, as disclosed by Lebow ('862):

7. The computer software product according to claim 5, wherein said signal is an outcome determinative input to a Boolean function ('862, col. 19, line 64).

Claim 8 recites, as disclosed by Lebow ('862):

8. The computer software product according to claim 7, wherein said computer is further instructed to perform the steps of: designating a second one of said resources as a second unidentified resource for accommodation of a second signal that is a second input of said Boolean function, an output of said Boolean function being insensitive to said second input; and avoiding binding said second unidentified resource with said second signal during execution of said test case ('862, fig. 5, branch from 122 to 102 depicts iterative operation wherein parameters of subsequent missing commands are not supplied until after execution of prior commands at 118).

Claim 9 recites, as disclosed by Lebow ('862):

9. A verification system of verifying a design, comprising a test generator adapted to perform the steps of: generating a test case for execution using said design, wherein said design comprises a plurality of resources, one of said resources being required at a predetermined time to accommodate a signal during execution of said test case ('862, col. 19, line 42, and fig. 5, 102); designating said one resource as an unidentified resource ('862,

col. 19, line 50, and fig. 5, 106); delaying binding said signal with said unidentified resource until immediately prior to said predetermined time; thereafter binding said signal with said unidentified resource to define a bound resource ('862, col. 19, line 54, and fig. 5, 108); and accessing said bound resource ('862, fig. 5, 118).

Claim 10 recites, as disclosed by Lebow ('862):

10. The verification system according to claim 9, wherein said test generator is further adapted to perform the steps of: prior to said predetermined time copying said unidentified resource to another of said resources ('862, col. 19, , line 45, line of test script to parser); and after passage of said predetermined time binding said signal with said another resource ('862, fig. 5, 118).

Claim 11 recites, as disclosed by Lebow ('862):

11. The verification system according to claim 9, wherein said signal is an outcome determinative input to a Boolean function ('862, col. 19, line 64).

Claim 12 recites, as disclosed by Lebow ('862):

12. The verification system according to claim 11, wherein said test generator is further adapted to perform the steps of: designating a second one of said resources as a second unidentified resource for accommodation of a second signal that is a second input of said Boolean function, an output of said Boolean function being insensitive to said second input; and avoiding binding said second unidentified resource with

said second signal during execution of said test case ('862, fig. 5, branch from 122 to 102 depicts iterative operation wherein parameters of subsequent missing commands are not supplied until after execution of prior commands at 118).

***Allowable Subject Matter***

Claims 13-34 are allowed.

The following is an examiner's statement of reasons for allowance:

The independent claims 13, 18, and 23 recite, "setting a second flag that designates said second resource as being unidentified; including said second resource in a set of unidentified resources that is associated with said first resource, wherein each member of said set has a status flag designating said member as being unidentified; and thereafter performing the steps of identifying said second resource; clearing said second flag; and removing said second resource from said set". This feature in combination with the remaining claimed structure avoids the prior art of record.

The following is an examiner's statement of reasons for allowance:

The independent claims 26, 29, and 32 recite, "excluding said selected member from said set of inputs; removing all remaining members of said set of inputs that are no longer outcome determinative of said Boolean function; iterating said steps of selecting, resolving, excluding and removing until no more than one member remains in said set of inputs; and determining said output resource as a copy of said one



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member". This feature in combination with the remaining claimed structure avoids the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MICHAEL NGHIEM  
PRIMARY EXAMINER

SJC